Respectfully submitted,

Friedrich Kueffner Reg. No. 29,482
342 Madison Avenue
New York, NY 10173
(212) 986-3114

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ENCLS:
Amended Claims;
Marked-Up Version.

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Friedrich Kueffner

MARKED-UP VERSION OF AMENDED CLAIMS

1. Blast furnace installation with a blast furnace in a shaft furnace configuration and of a free-standing construction without frame as well as correlated installation parts such as hot blast generating device, burdening, and pouring bay, for continuous smelting of at least partially treated iron ore to hot metal, [characterized in that] <u>wherein</u> the blast furnace (10) with a frame diameter of between 5 and 10 m is of a compact configuration with the features

(a) a self-supporting blast furnace armor construction wherein the entire upper blast furnace construction of the blast furnace (10) - with a top closing device (14) configured as a revolving chute with a fixedly installed slant angle without tilting mechanism, gas removal pipe (15), and safety valves (16) including pressure compensation - is supported on the blast furnace armor (12);

b) in the frame area, in the zones of belly of the blast furnace, waist of the blast furnace, and lower shaft, water-cooled cooling elements of a material having high thermal conductivity are arranged between the refractory furnace wall (11) and the blast furnace armor (12);

c) for tapping of the hot metal only one tap hole (18) is installed on the furnace (10) with only one set of tap hole plugging and drilling machines.

2. Blast furnace installation according to claim 1, [characterized in that] wherein the top closing device (14) is in working connection with a radially movable throat armor (17).

3. Blast furnace installation according to [claim 1 or 2, characterized in that] claim 1, wherein directly adjacent to the blast furnace (10), at a spacing from the center axis of the blast furnace of approximately 25 to 35 m, a vertical conveyor (20) for conveying the raw materials (iron ore, reduction agents, additives) into the blast furnace is arranged and that directly adjacent to the vertical conveyor (20) the burdening (30) is arranged.

4. Blast furnace installation according to claim 3, [characterized in that] wherein the burdening (30) is reduced to a working and material storage volume of preferably 3 to 4 hours.

5. Blast furnace installation according to [one or several of the claims 1 to 4, characterized in that] claim 1, wherein the blast furnace (10) and the burdening (30) are connected to one another via the installed automation and control device.

6. Blast furnace installation according to [one or several of the claims 1 to 5, characterized in that] claim 1, wherein the pouring bay (50) is configured and arranged directly adjacent to the blast furnace (10) such that by means of a gutter system (52) the crude iron is directly transported into correspondingly large ladles (51) and the slag is directly transported into a slag blanket (53) and/or into a slag granulation device (54).

7. Blast furnace installation according to [one or several of the claims 1 to 6, characterized in that] claim 1, wherein the hot blast generating device (40) is operated preferably with only two hot blast apparatus (41).

8. Use of a blast furnace installation according to [one or several of the claims 1 to 8, characterized in that] claim 1, wherein the compact blast furnace installation is used for producing hot metal in so-called mini mills (mini steel works with an annual capacity of approximately 0.5 to 2 million tons).